

Case Report on the Ayurvedic Management of Attention Deficit Hyperactive Disorder

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ABSTRACT

The neurobehavioral disorder that affects children the most frequently is attention deficit hyperactivity disorder or ADHD. Inattention, hyperactivity and impulsivity are its hallmarks, and it impairs social, academic and professional functioning. In Ayurveda the *Unmada* chapter discusses illnesses associated with behavioural and mental problems. So it may be associated to *Unmada* based on the signs and symptoms. The present case was carried out in *Kaumarabhritya* OPD & IPD of Govt. *Ayurvedic* A grade hospital Motichohatta Udaipur with the intention of evaluating the effectiveness of an Ayurvedic treatment plan in the treatment of childhood ADHD. Assessments were conducted both before and after treatment, as well as during follow-ups, using Ayurvedic treatments such as *Kosthashodhana*, *Shirodhara* and *Nasya*. The effectiveness of the prescribed medication for ADHD was determined.

INTRODUCTION

ADHD is the most commonly diagnosed mental disorder in children. Boys are more likely to have it than girls. It's usually spotted during the early school years, when a child begins to have problems paying attention. It was estimated to have a prevalence of 1.3 per 1000 in India. The American Academy of Paediatrics advises assessing children aged 4 to 18 for ADHD if they exhibit behavioural or academic issues together with signs of impulsivity, hyperactivity, or inattention. It disrupts social, intellectual and professional functioning. It will start when the child is 12 years old. Even though ADHD symptoms start in childhood, they can persist into adolescence and adulthood.[1] Birth issues such toxaemia, protracted labour and difficult delivery are more common in mothers of children with ADHD. Attentional issues connected to the development of ADHD are frequently linked to maternal drug use, alcohol and tobacco use during pregnancy and exposure to lead or mercury.[2] Although ADHD and *Unmada* are not directly associated in Ayurveda, they might be almost related based on their indications and symptoms. *Acharya Charaka* claims that eating incompatible, tainted and filthy food, being possessed by spirits like gods and experiencing mental trauma from frequent exposure to fear or excitement are the main causes of *Unmada*. These factors cause the individual with a low amount of *Sattva Guna* to have a vitiated *Dosha*, which in turn vitiates the mind, which is the seat of intellect. Intellectual disorientation, mental instability, irritability, restlessness, nonsensical speech, a sense of mental emptiness, and anxiety are typical

symptoms of *Unmada*. The current case was an attempt to treat ADHD utilising an *Ayurvedic* therapy approach since it plays a significant role in treating neurobehavioral disorders like ADHD.

CASE STUDY

The patient was a 7-year-old boy who came to our *Kaurmarbhritya* OPD of Madan Mohan Malviya govt. *Ayurved* college and hospital, Udaipur on 26/02/24 complaining of hyperactivity, anger, lack of focus, memory loss and delayed speaking. According to what her parents told them, the youngster seemed normal up until the age of three. Eventually, they became aware of their child's behavioural issues. He couldn't focus on anything in particular for longer periods of time. He became irritable and learnt slowly and inattentively. He couldn't even identify their parents due to his poor memory. Following that, he became socially inactive due to his uneasiness and fear of people and crowds. His speech was problematic as well. The patient had received treatment for this, but his behaviour had not changed. For more care, they came to our hospital.

Birth history

No specific history is found

Development History

Gross motor & fine motor development were normal as per the chronological age but there was delayed with Language and Social development.

Family history

Non-consanguineous marriage.

Personal history

Diet- Vegetarian

Bowel- Constipation

Urine- Normal

Sleep- Disturbed

General Examination, Anthropometry and Vitals

General condition - Fair, Lean, Hyperactive and inattentive.

Height - 117 cm

Weight - 21 kg

HC -52 cm

CC - 62cm

MAC -15 cm

HR - 90 bpm

RR -24 rpm

Temperature - Afebrile

Systemic Examination

Examination of Cardiovascular system, Respiratory system, Per-abdomen shows no deformity. Gait was normal. Muscle tone and texture was normal.

Central Nervous Examination

- Patient was conscious
- Inattentive
- Easily gets distracted
- Poor eye contact

- Not obeying the commands and irritable
- Can't speak properly.

Ashta Sthana Pareeksha

Nadi - Vata-Pittaja

Mala - Baddh (Hard consistency)

Mutra - Prakruta (4-6 times a day / 1-2 times at night)

Jihwa - liptha (coated)

Shabda - Aspashtha (unable to speak)

Sparsha - Sheetha (Cold)

Drika - Prakrutha (normal)

Akriti - Krusha (lean)

Samprapti Ghataka

Dosha - Vata- Pitta

Pradhana Dooshya - Rasa

Manas Agni - Vishamagni

Udbhavasthanana - Pakwashaya

Adhithana - Shiras

Vyakthasthanana - Sarvashareera

Srotas - Manovahasrotas

Srotodushti - Sanga and Vimargagamana

Rogamarga - Abyantara

Rogaswabhaba - Chirakari

Sadya Asadyata - Krichra Sadhya

Diagnosis: Attention Deficit Hyperactivity Disorder (*Vata-Pittaja Unmada*)

Treatment Plan

Table no .1 (1st Sitting Treatment Plan)

28/02/2024 to 08/03/2024	<i>Panchakarma</i> Given	<i>Shamana Aushadi</i>	Observation (After 15 days of discharge)
1 st – 2 nd day	<ul style="list-style-type: none"> • <i>Udhwarthana</i> with <i>Kola Kulatta Chuna + Godhuma Churna</i> f/b <i>Nadi Sweda</i> 	<ul style="list-style-type: none"> • <i>Saraswatarista</i> with gold 10 drops BD with milk 	<ul style="list-style-type: none"> • Mild decrease in hyperactivity. • Slight increase in concentration. • Able to spell few words.
3rd day	<ul style="list-style-type: none"> • <i>Sadhyo Virechana</i> with <i>Gandarvahastadi Taila</i> - 10ml with warm milk for 1 day 	<ul style="list-style-type: none"> • Syp Mentate 5ml BD • Smriti granules 1 tsf with milk at Bed time 	
4 th -10 th day	<ul style="list-style-type: none"> • <i>Shirodhara</i> with <i>Dashamoola Kwatha</i>. • <i>Sarvangaabyanga</i> with <i>Ksheerabala Taila</i> f/b <i>Nadisweda</i> • <i>Matrabasti</i> with <i>Ksheerabalataila</i> - 30ml 	<ul style="list-style-type: none"> • <i>Asyapratishrana</i> with <i>Trikatu, Yastimadhu, Vacha Churna</i>, twice daily 	

Table no .2 (2nd Sitting Treatment Plan)

29/03/2024 to 06/04/2024	<i>Panchakarma</i> Given	<i>Shamana Aushadi</i>	Observation (After 15 days of discharge)
1 st day	<ul style="list-style-type: none"> • <i>Udhwarthana</i> with <i>Kola Kulatta Chuna + Godhuma Churna</i> f/b <i>Nadi Sweda</i> 	<ul style="list-style-type: none"> • <i>Brahmi Vati Swarna Yukta OD</i> with milk • E/s <i>Brahmi Ghrita</i> 5ml-BD 	<ul style="list-style-type: none"> • Able to spell more words than the last admission • Able to concentrate on particular thing for more time • Social activeness increased. • Able to follow some instructions given by parents.
2 nd day- 10 th day	<ul style="list-style-type: none"> • <i>Sarvangaabyanga</i> with <i>Ksheerabala Taila</i> f/b <i>Nadisweda</i> • <i>Takradhara</i> with <i>Brahmi, Yashtimadu, Vacha, Rasna, Ashwaganda Churna Matrabasti</i> with <i>Ksheerabala Taila</i> - 30 ml 	<ul style="list-style-type: none"> • <i>Asyapratistrana</i> with <i>Trikatu, Yastimadhu, Vacha Churna,</i> twice daily 	

Table no .3 (3rd Sitting Treatment Plan)

15/04/24 to 23/04/24	<i>Panchakarma</i> Given	<i>Shamana Aushadi</i>	Observation (After 15 days of discharge)
1 st day	<ul style="list-style-type: none"> • <i>Udhwarthana</i> with <i>Kola Kulatta Chuna + Godhuma Churna</i> f/b <i>Nadi Sweda</i> 	<ul style="list-style-type: none"> • <i>Brahmi Vati Swarna Yukta OD</i> with milk 	<ul style="list-style-type: none"> • Irritability was decreased. • Fear towards stranger decreased. • Able to spell more words than earlier
2 nd day- 10 th day	<ul style="list-style-type: none"> • <i>Shirodhara</i> with <i>Dashamoola Kwatha.</i> • <i>Sarvangaabyanga</i> with <i>Ksheerabala Taila</i> f/b <i>Nadisweda</i> • <i>Matrabasti</i> with <i>Ksheerabalataila</i> - 30ml 	<ul style="list-style-type: none"> • E/s <i>Brahmi Ghrita</i> BD • <i>Syp Mentate</i> -5ml OD 	

Table no .4 (4th Sitting Treatment Plan)

21/05/2024 To 29/05/2024	<i>Panchakarma</i> Given	<i>Shamana Aushadi</i>	Observation (After 15 days of discharge)
1 st day	<ul style="list-style-type: none"> • <i>Udhwarthana</i> with <i>Kola Kulatta Chuna + Godhuma Churna</i> f/b <i>Nadi Sweda</i> 	<ul style="list-style-type: none"> • <i>Brahmi Vati Swarna Yukta</i> 1 with milk-OD 	<ul style="list-style-type: none"> • Able to spell more words. • Able to recognize the parents
2 nd day-	<ul style="list-style-type: none"> • <i>Sadhyo Virechana</i> with <i>Trivrut Leha</i> - 15gms with milk 	<ul style="list-style-type: none"> • <i>Syp Mentate</i> 5ml OD 	<ul style="list-style-type: none"> • Concentration and

10 th day	<ul style="list-style-type: none"> • <i>Shirodhara</i> with <i>Ksheerabalataila</i>. • <i>Sarvangaabyanga</i> with <i>Ksheerabala Taila f/b Nadisweda</i> • <i>Matrabasti</i> with <i>Kalyanaka Ghrita</i> -30ml 	<ul style="list-style-type: none"> • <i>Asyapratisarana</i> with <i>Trikatu, Yastimadhu and Vacha Churna</i>. • <i>Pratimarsha Nasya</i> with <i>Brahmi ghrita</i> 2-2 Drop in each Nostril 	memory is increased than the earlier.
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Table no .5 (5th Sitting Treatment Plan)

22/06/24 To 29/06/24	<i>Panchakarma</i> Given	<i>Shamana Aushadi</i>	Observation (After 15 days of discharge)
1 st day- 10 th day	<ul style="list-style-type: none"> • <i>Shirodhara</i> with <i>Brahmi tail</i> • <i>Sarvangaabyanga</i> with <i>Ksheerabala Taila f/b Nadisweda</i> • <i>Matrabasti</i> with <i>Maha Kalyanaka Ghrita</i> -30ml 	<ul style="list-style-type: none"> • <i>Brahmi Vati Swarna Yukta</i> 1-0-0 with milk • Syp Mentate 0-0-5ml • <i>Asyapratisarana</i> with <i>Trikatu, Yastimadhu and Vacha Churna</i>. • <i>Pratimarsha Nasya</i> with <i>Brahmi ghrita</i> -2-2 Drop in each Nostril 	<ul style="list-style-type: none"> • Concentration on particular thing has been increased a lot. • Able to recognize her family members and friends. • Hyperactivity decreased • She is able to attend the school • Able to spell her name and their family members. • Able to recognize the body parts. • Socially friendly behaviour and friendship developed

Mode of action

*Saraswatarishta*³

The *Saraswatarishta* formulation consists of 18 ingredients, including *Bacopa monnieri*, *Asparagus racemosus*, *Pueraria tuberosa*, *Terminalia chebula*, *Zingiber officinale*, *Anethum sowa*, *Operculina ipomoea*, *Piper longum*, *Syzygium aromaticum*, *Acorus calamus*, *Saussurea lappa*, *Withania somnifera*, *Terminalia belerica*, *Tinospora cordifolia*, *Elettaria cardamomum*, *Embelia ribes*, *Cinnamomum zelonica* and pure gold.

Studies have shown that *Bacopa monnieri*⁴, *Withania somnifera*⁵, *Syzygium aromaticum*⁶, *Elettaria cardamomum*⁷, *Zingiber officinale*⁸, might play a more significant role in alleviating neurological symptoms compared to the others.

Brahmi Ghrita⁹

Brahmi ghrita contains eleven herbal drugs and cows' ghee. They are *Brahmi* (*Bacopa monnieri* (L.)), *Goghrita* (Clarified butter from cows milk), *Sunthi* (*Zingiberofficianale* Roxb), *Marica* (*Piperlongum* Linn), *Pippali* (*Piperlongum* Linn), *Syama* (*Operculinaturpethum* Linn), *Silvamamso*, *Trivrit* (*Operculinaturpethum* Linn), *Silva mamso*, *Danti* (*Baliospermumsolanifolium* (Burm.)), *Sankhapushpi* (*Convolvulus pluricaulis* Choisy), *Nrupadruma* (*Cassia fistula* Linn), *Saptala* (*Euphorbiadracunculoides* Lam), *Krumihara*. (*Embeliaribes* Burm.f.). *Brahmi Ghrita* is indicated for a variety of conditions, including psychiatric disorders like insanity (unmada), neurological disorders such as epilepsy (*apasmara*), and neurodegenerative disorders that affect speech, language, and memory (*vakswaramedha smritikrit*). It is also used to treat psychosomatic conditions like infertility (*vandhya sutapradam*) and skin diseases (*kushta*).

Out of the 12 drugs, only four have an impact on the central nervous system: *Brahmi* (*Smrithipratha*), *Sankhapushpi* (*Medhya*, *Manasaroga*, *Smruti*, *Apasmara*, *Bhuta*), *Trivrut* (*Mada*), and *Goghrita*. Among these, *Sankhapushpi*, *Pippali*, and *Brahmi* possess *rasayana* properties, with *Brahmi* being specifically recommended for improving language and memory. *Sankhapushpi* is classified as a *medhya rasayana* and is directly indicated in various psychiatric diseases, epilepsy (*apasmara*), and *bhuta graha*, as described in classical texts.

Udwarthana¹⁰

In each sitting for 1st day along with *Deepana*, *Pachana* drugs we conducted *Udwartha* for *Avaranahara* action.

Nasya¹¹

Nasa is the *Dwara* of *Shiras*. So, we advised the *Pratimarsha Nasya* with *Brahmi ghrita* which increased her mental ability. So, for the further development in the condition, we added *shirodhara*

Shirodhara¹²

We prepared for *Shirodhara* since *Shira* is regarded in *Ayurveda* as *Uttamanga*, which regulates bodily activities. *Dhara* activates the local cells in a continuous oscillating fashion when it falls over the head and forehead. These medications, which include *Brahmi ghrita* and *pancha gavya ghrita* are *Vata*. The cooling impact of *Pitta Hara* and *Sheetavirya* on the head helps to lessen hyperactivity. Their *Medya* quality boosts their capacity for focus and recall. Only in severe circumstances does *Shirodhara* serve as the *Sthanika Chikitsa*.

Matra Basti

Basti is regarded as *Ardha Chikitsa*, the primary remedy for *Vata*, according to *Acharya Charaka*¹³. *Vata* regulates *rajoguna*, which is prevalent in ADHD. Therefore, *Rajo Guna* is likewise controlled if *Matra Basti* reduces stress, anxiety, and sadness by acting on the brain and the entire body through the gut-brain axis.

At first, we suggested that *Matra Basti* take *Tailas* like *Ksheerabala Taila* and *Mahanarayana Taila* since they assist regulate *Vata* which in turn regulates hyperactivity, the main symptom of ADHD. Later on in the subsequent sessions, we recommended *Mahakalyanaka Ghrita* because it aids to increase cognitive power and regulate *Pitta*. We employed *Brahmi Taila*, which has *Medya* properties, after *Vata Pitta* became under control.

Shamana Aushadi

The diseased Doshas will be removed from the body following purification procedures. Following that, the *Shaman Aushadi*, which contains gold with *Medya* qualities, will operate on the brain cells and improve memory and attention. *Smriti* granules, *Saraswataarista* with gold, *Brahmi Vati Swarna Yukta*, and *Brahmi Ghrita* were among the things we suggested.

Asyapratisaran

Speech is another issue with ADHD, and since the child in this instance was having trouble speaking, we also scheduled *Asyapratisarana* with *Teekshna*, *Ushna*, and *Medhya* medications, which greatly improved her speaking ability.

DISCUSSION

ADHD is linked to both *Pitta* and *Vata doshas*, and in this instance, we saw both *Vata* and *Pitta* predominate. Therefore, restoring *Vata Pitta* to normal was the primary goal of the therapy approach. Drugs with *Medya* qualities were employed since ADHD is a neurobehavioral illness. We suggested *Sadhyo Virechana* with *Trivrut Lehava* with milk during the initial admission for *Koshta Shodhana*, which also aids in subsequent treatment by ensuring that the medication is absorbed appropriately. Since the traditional *Virechana* is contraindicated for a 7-year-old, we arranged for *Sadhyo Virechana* instead.

Then in each sitting we had planned for the *Sarvanga Abyanga*, *Nadi Sweda*, *Shiropichu*, *Shirodhara*.

CONCLUSION

Based on the signs and symptoms, *Ayurveda* claims that ADHD and *Unmada* are almost identical. In the same way, symptoms, *Chikitsa*, and the *Doshas* involved are explained. *Vata-Pittaja Unmada* was the diagnosis made in this case, and therapy has been arranged appropriately. Treatment consisted of speech therapy, *Asyapratisarana*, *Pratimarsha Nasya*, *Deepana*, *Pachana*, and *Shirodhara*, followed by *Shaman Aushadi* using *Medya* medications. Given that ADHD is *Yapya Vyadhi*, an effort was made to improve the child's and the family's quality of life, and the outcomes were satisfying, including the parents.

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